

AMENDMENTS TO THE CLAIMS:

Kindly amend claims 13, 15, 18, 19 and 21, as shown below.

This listing of claims will replace all prior versions and listings of claims in the
Application:

Claim 1 (original): A method for compensating track offset in an optical disk drive,
comprising:

- (a) providing an optical disk with wobbled grooves;
the wobbled grooves being used for generating a wobbling signal with a wobbling period;
- (b) recording a beat-inducing signal on the disk;
a period of the beat-inducing signal having a specific relationship with the wobbling period in such a way that a beat signal is induced by the beat-inducing signal and the wobbling signal;
- (c) generating a tracking-error signal using a push-pull method by optically reading the wobbled grooves of the disk and the beat-inducing signal recorded on the disk;
the tracking-error signal containing a beat signal induced by the beat-inducing signal and the wobbling signal; and
- (d) compensating track offset based on the beat signal contained in the tracking-error signal.

Claim 2 (original): The method according to claim 1, wherein the period of the beat-inducing signal is set at a value within a range from 0.85 to 1.25 times as much as the period of the wobbling signal.

Claim 3 (original): The method according to claim 1, wherein a level of the beat signal is compared with a first reference level and a second reference level in the step (d) of compensating track offset, where the first reference level is different from the second reference level;

and wherein if the level of the beat signal has a first relationship with the first reference level and a second relationship with the second reference level, the beat signal is determined as good.

Claim 4 (original): The method according to claim 1, wherein a dc component of the beat signal is extracted;

and wherein the track-offset value is set in such a way that the dc component of the beat signal is set at a specific level.

Claim 5 (original): The method according to claim 4, wherein the specific level is approximately zero.

Claim 6 (original): The method according to claim 1, wherein in the step (d) of compensating track offset, whether the beat signal is good or not is judged with respect to a specific value of the track offset;

and wherein if the beat signal is judged as good, the track offset is fixed at the specific value;

and wherein if the beat signal is judged as no-good, the specific value of the track offset is changed to a different value and then, whether the beat signal is good or not is judged again.

Claim 7 (original): A method for compensating track offset in an optical disk drive, comprising:

- (a) providing an optical disk with wobbled grooves and a beat-inducing signal;
the wobbled grooves being used for generating a wobbling signal with a wobbling period;
a period of the beat-inducing signal having a specific relationship with the wobbling period in such a way that a beat signal is induced by the beat-inducing signal and the wobbling signal;
- (b) generating a tracking-error signal using a push-pull method by optically reading the wobbled grooves and the beat-inducing signal recorded of the disk;
the tracking-error signal containing a beat signal induced by the beat-inducing signal and the wobbling signal; and
- (c) compensating track offset based on the beat signal contained in the tracking-error signal.

Claim 8 (original): The method according to claim 7, wherein the period of the beat-inducing signal is set at a value within a range from 0.85 to 1.25 times as much as the period of the wobbling signal.

Claim 9 (original): The method according to claim 7, wherein a level of the beat signal is compared with a first reference level and a second reference level in the step (c) of compensating track offset, where the first reference level is different from the second reference level;

and wherein if the level of the beat signal has a first relationship with the first reference level and a second relationship with the second reference level, the beat signal is determined as good.

Claim 10 (original): The method according to claim 7, wherein a dc component of the beat signal is extracted;

and wherein the track-offset value is set in such a way that the dc component of the beat signal is set at a specific level.

Claim 11 (original): The method according to claim 10, wherein the specific level is approximately zero.

Claim 12 (original): The method according to claim 7, wherein in the step (c) of compensating track offset, whether the beat signal is good or not is judged with respect to a specific value of the track offset;

and wherein if the beat signal is judged as good, the track offset is fixed at the specific value;

and wherein if the beat signal is judged as no-good, the specific value of the track offset is changed to a different value and then, whether the beat signal is good or not is judged again.

Claim 13 (currently amended): A system for compensating track offset in an optical disk drive, comprising:

(a) [[means]] a signal recorder for recording a beat-inducing signal on an optical disk with wobbled grooves;

the wobbled grooves being used for generating a wobbling signal with a wobbling period;

a period of the beat-inducing signal having a specific relationship with the wobbling period in such a way that a beat signal is induced by the beat-inducing signal and the wobbling signal;

(b) [[means]] a signal generator for generating a tracking-error signal using a push-pull method by optically reading the wobbled grooves of the disk and the beat-inducing signal recorded on the disk;

the tracking-error signal containing a beat signal induced by the beat-inducing signal and the wobbling signal; and

(c) [[means]] a controller for compensating track offset based on the beat signal contained in the tracking-error signal.

Claim 14 (original): The system according to claim 13, wherein the period of the beat-inducing signal is set at a value within a range from 0.85 to 1.25 times as much as the period of the wobbling signal.

Claim 15 (currently amended): The system according to claim 13, wherein a level of the beat signal is compared with a first reference level and a second reference level in the [[means]] controller for compensating track offset, where the first reference level is different from the second reference level;

and wherein if the level of the beat signal has a first relationship with the first reference level and a second relationship with the second reference level, the beat signal is determined as good.

Claim 16 (original): The system according to claim 13, further comprising a filter for extracting a dc component of the beat signal;

wherein the track offset value is set in such a way that the dc component of the beat signal is set at a specific level.

Claim 17 (original): The system according to claim 16, wherein the specific level is approximately zero.

Claim 18 (currently amended): The system according to claim 13, wherein in the [[means]] controller for compensating track offset, whether the beat signal is good or not is judged with respect to a specific value of the track offset;

and wherein if the beat signal is judged as good, the track offset is fixed at the specific value;

and wherein if the beat signal is judged as no-good, the specific value of the track offset is changed to a different value and then, whether the beat signal is good or not is judged again.

Claim 19 (currently amended): A system for compensating track offset in an optical disk drive, comprising:

(a) [[means]] a signal generator for generating a tracking-error signal using a push-pull method by optically reading wobbled grooves of an optical disk and a beat-inducing signal recorded on the disk;

the wobbled grooves being used for generating a wobbling signal with a wobbling period;

a period of the beat-inducing signal having a specific relationship with the wobbling period in such a way that a beat signal is induced by the beat-inducing signal and the wobbling signal;

the tracking-error signal containing a beat signal induced by the beat-inducing signal and the wobbling signal; and

(b) [[means]] a controller for compensating track offset based on the beat signal contained in the tracking-error signal.

Claim 20 (original): The system according to claim 19, wherein the period of the beat-inducing signal is set at a value within a range from 0.85 to 1.25 times as much as the period of the wobbling signal.

Claim 21 (currently amended): The system according to claim 19, wherein a level of the beat signal is compared with a first reference level and a second reference level in the [[means]] controller for compensating track offset, where the first reference level is different from the second reference level;

and wherein if the level of the beat signal has a first relationship with the first reference level and a second relationship with the second reference level, the beat signal is determined as good.

Claim 22 (original): The system according to claim 19, further comprising a filter for extracting a dc component of the beat signal;

wherein the track-offset value is set in such a way that the dc component of the beat signal is set at a specific level.

Claim 23 (original): The system according to claim 22, wherein the specific level is approximately zero.

Claim 24 (previously presented): An optical disk drive comprising the system according to claim 13.

Claim 25 (previously presented): An optical disk drive comprising the system according to claim 19.